



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,951	10/23/2003	Ronald A. Holland	C043770/0126119	6317
49328	7590	12/20/2005	EXAMINER	
BRYAN CAVE LLP 211 NORTH BROADWAY SUITE 3600 ST. LOUIS, MO 63102-2750			LUM VANNUCCI, LEE SIN YEE	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/691,951	<b>Applicant(s)</b> HOLLAND, RONALD A.	
	<b>Examiner</b> Lee Lum	<b>Art Unit</b> 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 44-48 and 54-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 44-48, 54-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. A Request for Reconsideration was filed 9/29/05.

2. An amended Spec was filed 9/26/05. However, it is disapproved for inclusion into the application because it contains new matter as follows:

Paragraph 17 – the addition of “either brush or brushless type”, “between about 10 to 1, and about 20 to 1”.

Paragraph 22 – the deletion of “brushless, gearless hub-type”, the addition of “a speed reduction drive...embodiment”.

Paragraphs 23-25, 31-33 – all new matter, and where the latter paragraphs fail to agree with that provided in the original Spec.

3. The drawings filed 9/26/05 are objected to because the replacement figs 4-7 do not correlate with the original figs 4-7, but appear to be one drawing “off”; i.e., replacement fig 4 appears to be the replacement for original *fig 5*, etc.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

Art Unit: 3611

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 5, 44, 45, 47, 48, 54, 55, 57 and 58** are rejected under 35 U.S.C. 102(b) as being anticipated by Gelhard 4541500.

Re Claims 1, 2, 5, 54, 55, 57 and 58, Gelhard discloses an electric drive vehicle/bicycle 10, comprising

Frame (fig 1, inherent),

Rear wheel 44 with sprocket 18, and multi-speed hub (unidentified), with gears 24, 25, and derailleur (c3, ln 40-44),

Gearless DC electric motor 15 (c2, ln 58) with

A rotatable assembly, including sprocket 30 fixed to the assembly, and a fixed assembly/housing by which the motor is mounted to the frame (via element 28),

Engaging chain 17, and rear wheel sprocket 18, and transferring motion from the motor to the wheel,

Pedal crank assembly 11 including chain wheel 12, and

Uni-directional drive(s), comprising elements 16, 30, 31, and other elements included in the freewheeling devices on the bicycle, as provided in c2, ln 63, to c3, ln 49,

engaging the rotatable assembly of the motor and the crank assembly for transferring motion from the pedal crank to the motor, but not vice versa -

Whereby either/both crank and motor drives the vehicle (c1, ln 31-34, and c2, ln 63, to c3, ln 49), and,

The motor can be recharged via the pedals (c3, ln 14-16).

Re **Claims 44, 45, 47 and 48**, the reference also discloses a method of providing an electric drive on a pedal-powered vehicle, the steps derived from the structure and/or means provided above.

Art Unit: 3611

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 3, 4, 46 and 56** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelhard in view of Rudwick 4280581.

Gelhard discloses the previously-recited elements, but does not disclose the rear hub as having internal gears. Rudwick shows this extremely well-known configuration in c6, ln 21-22. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this arrangement, as shown in Rudwick, to provide speed changes for different riding situations, thus increasing enjoyment and safety, while also protecting the gears from the elements.

6. RESPONSE TO REMARKS


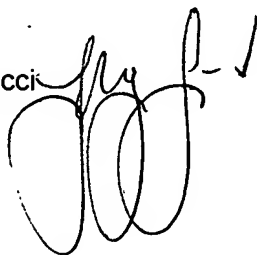
Upon reconsideration, Examiner has provided new rejections obviating all recited elements. She apologizes for the inconvenience.

7. Communication with USPTO/Examiner

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272-6649, M-Th, 9-6. If she cannot be reached, her supervisor, Ms. Morris may be reached at 571 272-6651. Our fax number is 703 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications: private PAIR. For published applications: private or public PAIR. Questions re private PAIR: contact the Electronic Business Center (EBC) at 866 217-9197.

Ms. Lee S. Lum-Vannucci  
Examiner  
12/8/05



LESLEY D. MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600